

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Protective Coating Systems - Seawater Ballast Tanks**with type designation(s)
JOTAMASTIC 87

Issued to

Jotun A/S
SANDEFJORD, Norway

is found to comply with

DNV GL class programme DNVGL-CP-0108 – Type approval – Protective coating systems for seawater ballast tanks and double-side skin spaces
IMO Resolution MSC.215(82) Performance Standard for Protective Coatings (PSPC)
IACS Unified Interpretations SC223. For Application of SOLAS Regulation II-1/3-2
Performance Standard for Protective Coatings (PSPC) for Dedicated Seawater Ballast Tanks in All Types of Ships and Double-side Skin Spaces of Bulk Carriers.**Application :****For use in ballast tanks, double-skin spaces, cofferdams and similar areas. Surface preparation and coating application as per PSPC or manufacturer's recommendations, whichever is stricter.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Hamburg** on **2019-06-11**This Certificate is valid until **2024-06-30**.DNV GL local station: **Sandefjord**for **DNV GL**Approval Engineer: **Enno Brück**

Thorsten Lohmann
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

JOTAMASTIC 87, 2-component epoxy based, light coloured, coating for corrosion protection of steel surfaces.

Manufactured by

Jotun Coatings (Zhangjiagang) Co. Ltd., Jiangtse River Internat., Chemical Industry Park, Zhangjiagang Free Trade Zone, Jiangsu 215634, China.

Local DNV GL station: Nanjing.

Responsibility

The Company (stated on the front page of this Certificate) takes the responsibility that both design and production are in compliance with Rules, Standards and/or Regulations listed on page 1 of this certificate.

Application/Limitation

This approval is solely connected to the corrosion prevention properties of the coating material. The approval does not include any evaluation of toxicity, contamination, pollution, or fire technical properties.

JOTAMASTIC 87 is approved for application on blast cleaned surfaces and on shop primed surfaces. The following shop primers have been prequalified:

- | | |
|-------------------------------|-------------------------|
| - MUKI Z 2001 | [Jotun A/S] |
| - SigmaWeld 199 | [PPG / Sigma Coatings] |
| - Cerabond 2000 | [Chugoku Marine Paints] |
| - Hempel' Shopprimer ZS 15890 | [Hempel A/S] |
| - Interplate 855 | [International Paint] |

Surface preparation and coating application as per PSPC or manufacturer's recommendations, whichever is stricter.

The durability of the applied coating system will depend on the steel surface preparation, coating application and the environmental conditions.

The Type Approval Certificate is invalid if the formulation of the epoxy coating **JOTAMASTIC 87** is changed to a degree deemed significant by DNV GL. If the formulation of any of the listed pre-qualified shop primers is changed to a degree deemed significant by DNV GL that shop primer cannot be used as part of the Protective Coating System.

Tests carried out

Type testing carried out in accordance with DNV GL CP-0108. The tests are carried out in accordance with the procedures in IMO Resolution MSC.215(82) performance Standard for protective Coatings (PSPC), ref. IACS UI SC223;

- DNV Bergen Report No. BGN-R2707460 of 2008-01-18.
- Bodycote Report No. N805 289, Issue 2, "Ballast Tank Coating Test Jotamastic 87 Epoxy Paint over Sigmaweld 199 Zinc Silicate Shop Primer" of 2009-09-01.
- Bodycote Report No. N805 291, Issue 1, "Ballast Tank Coating Test Jotamastic 87 Epoxy Paint over Cerabond 2000 Zinc Silicate Shop Primer" of 2008-10-10.
- Bodycote Report No. N805 290, Issue 1, "Ballast Tank Coating Test Jotamastic 87 Epoxy Paint over Hempel 1589 Zinc Silicate Shop Primer" of 2008-10-10.

Job Id: **262.1-004278-11**
Certificate No: **TAK00001N8**

- Bodycote Report No. N805 293, Issue 1, "Ballast Tank Coating Test Jotamastic 87 Epoxy Paint over Interplate 855 Zinc Silicate Shop Primer" of 2008-10-10.

Marking of product

Product/package shall be marked with *manufacturer's name and address*; **Jotun Coatings (Zhangjiagang) Co. Ltd., Jiangsu 215634, China**, *type designation*; **JOTAMASTIC 87**, and *date of production/batch number*.

The marking is to be carried out in such a way that it is visible, legible and indelible. The marking of product is to enable traceability to the DNV GL Type Approval Certificate.

Periodical assessment

The scope of the Periodical Assessment is to verify that the conditions stipulated for the Type Approval is complied with and that no alterations are made to the product design or choice of materials.

Periodical Assessment (Certificate Retention) and renewal after 5 years (Certificate Renewal) shall be performed acc. DNV GL CP-0338.

END OF CERTIFICATE